impulse is furnished by the natural buoyancy in the great majority of furnaces, and this suffices whilst—though not in new furnaces, but in those which have been long in effective use—it frequently occurs that the chequer work of the, regenerator chambers becomes obstructed during the, run of the furnace, and thereby resistances are increased. Therefrom a shortage of air results, which involves (,he, worst, consequences.' The working of the furnace, becomes feeble and production fails off, and one is obliged to shut down the. furnace. By means of supplying air under pressure.....which is
easily achieved by means of employing a fan, and whereby the amount of the same can be easily brought up to the, required extent—this evil can be, removed. These artificial increases of the gas and air supplies attain their natural limits, due to the suction power of the chimney; thus, if driven too hard, the flame blazes out of the doors and makes work at the furnace impossible..

The absolute and relative quantities of gas and air tha.t must be supplied to the furnace can only bo determined when the composition of gas, and air required for the, healing gas are known, and therefore, firstly, the procedure for gasifyim/ the fuel, and the properties of the resultant gas, must he known.